MOODY'S ANALYTICS

WEEKLY MARKET OUTLOOK

NOVEMBER 9, 2023

Lead Author

Dante DeAntonio
Director

Asia-Pacific

Stefan Angrick
Heron Lim
Sarah Tan

Europe

Ross Cioffi
Olga Bychkova

U.S.

Justin Begley

Latin America

Juan Pablo Fuentes
Darrah Peklak

Inside Economics Podcast:

Join the Conversation

Apple Podcasts
Google Podcasts
Spotify

State of Stability

The total dollar delinquency rate for the U.S. rose to 1.86% in October, the highest since April 2020, but remains well below the five-year average leading up to the pandemic. Part of this can be explained by slowing loan growth, which all else equal raises delinquency. The year-ago growth rate in total loan balances has been cut in half compared with October 2022. However, this is not spread equally across credit instruments.

Credit card balances have reached an all-time high just shy of $1 trillion and represent the fastest growing loan type. Bankcard balances and originations are up 15.4% and 5.9%, respectively, over the past year as individuals have increasingly turned to new credit card debt in the face of higher prices. Households also remain on a historically strong financial footing, giving them more room to borrow to satiate elevated demand.

Table of Contents

Top of Mind 3

Week Ahead in Global Economy 4

Geopolitical Risks 5

The Long View
- U.S. 6
- Europe 12
- Asia-Pacific 15
- Latin America 16

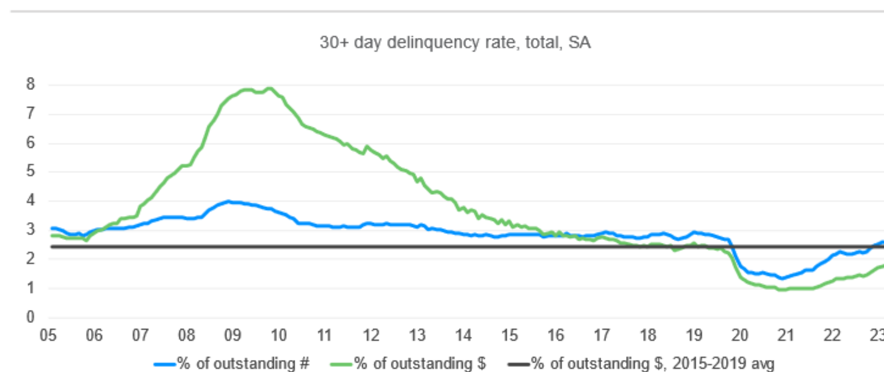
Ratings Roundup 17

Market Data 20

CDS Movers 21

Issuance 24

Returning to Norm



Sources: Equifax, Moody's Analytics

Moody's Analytics and Moody's Investors Service maintain separate and independent economic forecasts. This publication uses the forecasts of Moody's Analytics. Moody's Analytics markets and distributes all Moody's Capital Markets Research materials. Moody's Analytics does not provide investment advisory services or products. For further detail, please see the last page.

Mortgage and home equity borrowers are managing their debts better now than before the pandemic despite higher mortgage rates and house prices. While the average rate on 30-year fixed rate mortgages is around 7.75%, the effective mortgage rate in the U.S.—the median rate on all outstanding mortgages—is about 400 basis points lower, suggesting that most borrowers are not under the weight of today's higher home borrowing costs.

Mortgage delinquencies will likely remain low. First mortgage origination balances are down more than 40% over the past year, as rapidly rising interest rates, constrained inventory, and elevated prices weigh on the housing market.

The economy is being supported primarily by consumers. Consumer spending was responsible for more than half of the 4.9% annualized real GDP growth in the third quarter. But this cannot last forever. Higher interest rates will derail loan demand and slow the economy. Moreover, lenders will continue to tap the brakes as delinquency rates tick up alongside slower real income growth.

Residential lending will remain subdued for the foreseeable future as elevated interest rates and low supply keep transactions and mortgage originations in check. Unsecured lending, particularly credit card and consumer finance, will slow as the labor market softens. Performance will continue to deteriorate in the coming quarters, but delinquency and default rates for consumer credit products will only return to or slightly exceed pre-pandemic levels.

Long-term interest rates have surged since the late summer, lifting borrowing costs and pressuring bank balance sheets. This has resulted in tightened lending standards, which slows loan growth. Student loan payments will ramp up in the coming months, putting additional cost pressures on consumers. Finally, while the baseline forecast assumes the Fed is finished raising rates, a deviation from this path could lead to overtightening and easily push the U.S. into recession.

Baseline forecast changes

The U.S. economy continues to show significant resilience, with unexpectedly robust growth in the third quarter. Consequently, we made modest adjustments to the U.S. baseline forecast that include slightly higher near-term growth and a somewhat slower reduction in interest rates by the Federal Reserve. Nonetheless, the pattern of slowing growth in response to fiscal tightening next year followed by a return to trend growth by 2026 remains intact.

In sum, key assumptions changed little in November. Monetary policy assumptions were tweaked to include a slower loosening of monetary policy, although rate cuts still begin in June. Long-term rates were revised higher in response to recent movements in financial markets, but this simply helps to secure the slowdown in growth already forecast for next year. We continue to assume a two-week federal government shutdown in November, but the impact on the broader economy is minimal.

Our oil price outlook is little changed, although we did alter our outlook for U.S. natural gas prices because of a change in our forecasting approach. Recent data modestly strengthened the outlook for business investment. The projected recovery in existing-home sales was pushed out to late 2024 to reflect the expectation that mortgage interest rates will remain higher for longer, but this does support the outlook for new-home sales.

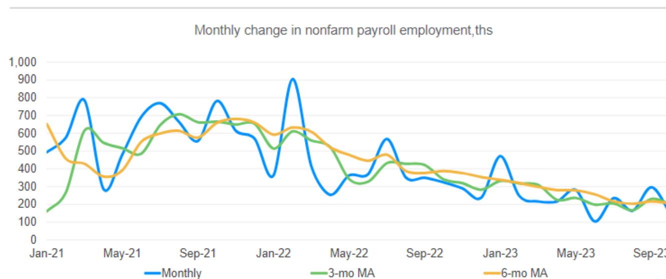
TOP OF MIND

A U.S. Jobs Report to Please the Fed

By JUSTIN BEGLEY

Friday's jobs report is welcome news to the Federal Reserve, which is concerned that persistent strength in the labor market will make its efforts to bring inflation to its 2% target more difficult. The October employment report painted a much more subdued picture of the labor market as job growth meaningfully slowed with the addition of just 150,000 payrolls and the unemployment rate ticked higher to 3.9%.

Job Growth Comes In a Bit Softer



Sources: BLS, Moody's Analytics

Further, after a stretch of downward revisions, previous months' estimates were revised downward. Together, there were 101,000 fewer payrolls created in August and September than previously estimated. Job growth has now averaged 204,000 during the last three months, compared with a prerevision average of 266,000 in September. October's job gains were concentrated primarily in service-based industries as well as the public sector. The public sector has been fervently adding jobs. Government employment has increased by 561,000 this year, the highest January-to-October increase since 1966. Meanwhile, the United Auto Workers union strike weighed on manufacturing employment. Jobs related to motor vehicles and parts production fell by 33,000 in October, largely due to the walkouts.

If there was any reason for concern about the labor market, it came from the household survey. The unemployment rate edged higher to 3.9%, the highest since January 2022. There are two primary reasons for the increase. First, household employment declined by 348,000 on the month, representing a serious divergence from the establishment survey's payroll estimate; this is not totally unusual. Moreover, nearly 800,000 people have lost their jobs so far this year, while the number of those voluntarily choosing to leave has remained markedly lower. However, this is not in itself concerning, given our expectation for ongoing softening in the labor market.

The second reason for the uptick in unemployment is more problematic. In October, more than 200,000 people left the labor force, causing the participation rate to backtrack for the first time since April. Men were the primary reason for the decline in the labor force as 460,000 exited, bringing the male labor force participation rate down 0.4 percentage point to 67.9%, the lowest since January. Meanwhile, more than 250,000 women joined the labor force in October, boosting the female labor force participation rate to 57.6%. The prime-age employment-to-population ratio, our preferred measure of full employment, declined 0.2 percentage point to 80.6%. While this is comfortably above the full employment threshold of 80%, October marks the second consecutive month of decline, raising the risk of a more worrisome trend developing, especially as the labor market slows.

The clearest and least economically painful path toward a soft landing in the labor market is for the labor supply to steadily grow as job gains slow, allowing the unemployment rate to ease slightly higher. The good news is that labor supply has consistently outpaced labor demand since the beginning of the year, giving the market some slack. But October's net labor force exodus does not help the matter. As the labor market has loosened, wage growth has started to rein in. Since inflation took off in late 2021, worries of a wage-price spiral have been elevated. While such a spiral has been largely avoided, above-average wage growth has continued to put outsize pressure on prices, making the Fed's efforts to bring down inflation more difficult. Yet, as the labor market has cooled, so has wage growth. Average hourly earnings advanced at a 0.2% month-over-month clip in October, bringing annual growth to 4.1%. While this is still above the Fed's 3.5% target—the rate of wage growth that is consistent with 2% inflation and 1.5% underlying productivity growth—wages are clearly trending in the right direction and should decelerate to target soon. The three-month moving average of annualized hourly earnings growth dipped to 3.2% in October, signaling that wage pressures on inflation could soon be alleviated.

Altogether, markets responded positively to Friday's jobs report, as it puts a damper on the notion that the Fed needs to hike interest rates again. Implied odds that policymakers will once again keep the fed funds rate within the current target range of 5.25% to 5.5% jumped on the news of softer job growth and higher unemployment from around 80% to just over 95%. This suggests that markets are digesting the labor market slowdown quite well.

The Week Ahead in the Global Economy

U.S.

The U.S. economic calendar ramps up next week. The highlight will be Tuesday's release of consumer price index data for October, but we will also get a fresh look at retail sales and new residential construction. On the inflation front, we expect that price growth will continue its slow moderation through the end of the year, though volatility will remain in the headline number.

Retail sales will slam the brakes after three months of impressive growth. We expect sales to be flat in October driven in part by a stronger decline in gasoline prices as well as weakness in new vehicle sales.

On the housing marking front, we expect the NAHB housing market index to continue to reflect a downbeat mood among homebuilders. Housing starts and permits should tick slightly higher in October, but both measures remain quite low as high interest rates keep a lid on housing market activity.

Asia-Pacific

We expect Japanese GDP to tick up a modest 0.2% in the third quarter from the second, mostly on the back of better net exports. Goods exports have picked up thanks to increased car shipments, while inbound tourism has lifted services exports. Domestic demand is still weak. We expect consumption spending to fall and investment spending to hold steady.

China's industrial production in October is poised to lose momentum. We expect the index to climb 4% year on year, which compares with 4.5% in August and September. Underlying strength should be found in commodities production, but manufacturing will hold the index back; China's manufacturing PMI for October fell unexpectedly to below the neutral threshold of 50.

Europe

Inflation releases will fill the schedule next week. We expect the euro zone's HICP inflation rate to be confirmed at 2.9% year over year in October, down from 4.3% in September. The decline will be driven by the energy segment, likely by lower natural gas prices. Food inflation will also ease, while there will be a modest 0.3-percentage point decrease in annual core inflation to 4.2%. Likewise, France's inflation rate will be finalized at 4% year on year, down from 4.9%. Italy's inflation rate will drop to 1.8% from 5.3%. And Spain's inflation rate will be unchanged at 3.5%.

The U.K.'s inflation rate will soften to 4.8% year over year in October from 6.7%. We expect food and core inflation rates to decline as well, but the energy segment will be the driving force of the release. Strong base effects will kick in, as October is the month that the country's gas and electricity price cap is updated. The default utilities tariff price cap was lowered to £1,834 for the fourth quarter of 2023, while the cap was hiked to £3,549 in the fourth quarter of 2022.

We forecast zero change in U.K. retail sales this October after September's 0.9% month-on-month slump. Consumer demand for goods will continue to struggle as households remain gloomy about economic prospects and struggle to regain lost purchasing power.

The U.K. unemployment rate, meanwhile, likely inched higher to 4.3% in the three months to September from 4.2% in the June quarter. PMI surveys from both the manufacturing and services sectors reported layoffs, in each case at an increasing pace that in the previous month.

Back on the Continent, we expect euro zone industrial production to have slowed in September with monthly growth of 0.2% compared with August's 0.6% rise. The euro zone's manufacturing sector remains weak as backlogs dwindle, but demand for new orders remains chilled.

Finally, the euro zone's not seasonally adjusted external trade balance likely registered a surplus of €6 billion for September, down from a surplus of €6.7 billion in August but up from a deficit of €37 billion in September 2022.

Latin America

Indicators next week will paint an economic shaped by contracting effects of high interest rates. Uruguay's industrial production likely rose 1.7% year over year September. The economy has been stagnant, with higher interest rates and a severe drought casting long shadows over sectors such as automotive and food processing.

Things are worse in Colombia, where manufacturing output likely contracted 7.5% year on year in September. As a result, the Colombian economy likely mustered only 0.5% year-on-year growth in the third quarter with the outlook remaining sluggish for the rest of 2023 and into 2024. Peru, where the job market was deteriorating due to a recession, likely will see a slight uptick in the jobless rate in the Lima metropolitan area.

Argentina, in the throes of soaring inflation, likely saw annual inflation of 145% in October and is projected to cross the 170% mark by year-end, the villains being currency devaluation and deficit spending.

Geopolitical Calendar

Date	Country	Event	Economic Importance	Financial Market Risk	Risk Assessment
12-18 Nov	APEC	Leaders' meeting, to be held in San Francisco, U.S.	Low	Low	The APEC summit will be watched for the latest cooperation agenda between members on goods, services, investment and people.
17-Nov	U.S.	Potential government shutdown	Low	Low	Congress has passed a continuing resolution that will fund the government at current spending levels through November 17. If lawmakers cannot come to an agreement on the FY2024 budget bills, the government will again face the possibility of a shutdown.
19-Nov	Argentina	Presidential election runoff	High	Medium	The highly contested election might yield a drastic shift in economic policy and the country's political orientation. The ruling leftist coalition surprised by winning the first round on October 22, but faces a strong challenge from libertarian outsider candidate Javier Milei in the runoff vote.
22-Nov	Netherlands	General election	Medium	Low	After a volatile first half of 2023 for Dutch politics, this snap election will determine whether the growing populist, right-wing presence will cement itself in the nation's politics.
26-Nov	OPEC+	OPEC and non-OPEC Ministerial Meeting and Joint Ministerial Monitoring Committee Meeting	High	High	The OPEC+ meetings will be closely watched on changes to oil production output and quotas as crude oil benchmarks have been getting closer to $100 due to cuts from Saudi Arabia and Russia.
30-Nov-12-Dec	U.N.	COP 28, to be held in Dubai, UAE	Low	Low	
14-15 Dec	EU	European Council summit	Low	Low	
31-Dec	U.S.	Deadline for enactment of FY24 National Defense Authorization Act	Medium	Low	As the U.S. faces a growing set of national security challenges from competitors such as China and military aggressors such as Russia, Iran and North Korea, appropriate funding has become increasingly necessary to combat external risks.
13-Jan	Taiwan	Presidential election	Medium	Medium	The election will have deep ramifications on the trajectory of U.S.-China relations.
14-Feb	Indonesia	General election (including presidential election)	Low	Low	Term-limited president Joko Widodo has put Indonesia's economic development agenda on a steady course, and his successor will be expected to follow through.
March	Russia	Presidential election	High	Medium	As the first presidential election in Russia since the war in Ukraine began and constitutional amendments were made in 2020, the election will be closely watched for internal instability and potential disruption, even as Vladimir Putin is highly likely to win re-election.
March	China	Two Sessions (meetings of China's top legislative body and political advisory body)	High	Medium	The annual Two Sessions meeting sets the wider policy agenda along with economic and social goals for the world's second-largest economy.
10-Apr	South Korea	General election	Low	Low	The election will determine whether President Yoon's policy agenda will continue to face opposition in the National Assembly.
May	India	Election (Lok Sabha, lower house)	Medium	Low	Prime Minister Narendra Modi is vying for a third term building India as an economic engine of the world, but the domestic focus is now towards inflation and economic inequality.
1-Jun	Mexico	General election	High	High	As elections commence in Mexico, the risk of social and political unrest will rise due to concerns over election subversion and fraud. Financial markets would be shaken while consumption and investment decisions tank, raising the risk of recession.
6-9 June	EU	Parliamentary elections	Medium	Low	The European Parliament has increased in importance since the founding of the EU. The parliament has the power to amend or adopt legislation proposed by the European Commission.

Little Change in Our Key Forecast Assumptions

By OLGA BYCHKOVA

CREDIT SPREADS

Corporate credit spreads have narrowed through the first week of November. Tight credit spreads show market participants remain confident in the creditworthiness of borrowers and see the overall economy as favorable. As a result, despite monetary policy tightening worldwide, market participants see a high likelihood for a "soft landing." This has been underpinned by healthy corporate balance sheets, persistent strength in consumer spending, and a relatively low level of corporate defaults this year. The Moody's Investors Service long-term average corporate bond spread to the 10-year U.S. Treasury has decreased 3 basis points to 134 bps, remaining slightly above its 12-month low of 133 bps. Similarly, Moody's long-term average industrial bond spread declined 5 bps to 114 bps over the past week, slipping below its one-year low of 115 bps.

Low-grade credit spreads—the difference between the yield on high-yield or below-investment-grade corporate bonds and the risk-free 10-year Treasury yield—have also trended lower since spiking to over 500 bps in the wake of the banking crisis in March. This yield spread represents the compensation investors demand for the risk that businesses they invest in could run into financial trouble and miss making timely principal and interest payments.

The U.S. Bloomberg/Barclays high-yield option-adjusted spread considerably narrowed to 398 bps from 438 bps the previous week, while the ICE BofA U.S. high-yield option-adjusted bond spread closed Wednesday at 408 bps, down a whopping 39 bps from its prior-week value. This compares with an average high-yield spread of 1,000 bps during recent recessions and an average 350 bps outside of recessions. The average spread since the high-yield market was established in the 1990s is about 500 bps.

The VIX index—a real-time indicator of the implied volatility of S&P 500 stocks that measures the market's sentiment about future asset price variance—has gradually fallen over the week, dropping 2.4 points to 14.45 Wednesday, significantly below its long-term average near 20. The stock market is recalibrating itself to accommodate a prolonged era of heightened interest rates and sustained inflation, which, in turn, is propelling volatility. Tensions on the geopolitical landscape could have an even more significant impact, stoking further risk aversion. In the past, there has been a significant correlation between credit spreads and equity market volatility, as measured by the VIX. This relationship was disrupted in recent years, but the decline in the VIX this year has brought it back generally in line with high-yield spreads.

GLOBAL DEFAULTS

Moody's Investors Service reported that 10 corporate debt issuers defaulted in September, down from 12 in August, the fewest since January. However, across regions, September defaults fell just in North America and the drop was significant: In the U.S. only three issuers defaulted, compared with eight in August.

Distressed exchanges, which have been the most common default type in recent years, accounted for nine of the 10 defaults last month. The only exception was Atento Luxco 1, which did not make the interest payment on its 8% senior notes by the end of the grace period. September's largest default was Wheel Pros, Inc., a U.S.-based wholesale distributor of custom and proprietary branded wheels, performance tires and related accessories in the aftermarket automotive segment. Depressed earnings and weak liquidity prompted the company to undertake a distressed debt exchange in September, which was viewed as a limited default.

In contrast to the U.S., defaults rose in China last month as the property sector continued to suffer from challenging operating and funding conditions. Country Garden Holdings Company Limited, a leading integrated property developer, completed a distressed exchange by extending the maturity of certain onshore bonds by three years without appropriate compensation.

September's defaulters increased the year-to-date tally to 119. Across sectors, business services are the largest contributors to year-to-date defaults, with 12. Telecommunications and construction & building followed with 10 each. By region, North America had 80 defaults (78 in the U.S. and two in Canada). The rest were from Europe (21), Latin America (9) and Asia-Pacific (9).

Despite the recent slowdown in monthly defaults, the trailing 12-month global speculative-grade default rate rose to 4.5% at the end of September, the highest since May 2021, from 4.3% a month earlier, both surpassing the long-term average of 4.1%. The default pace has increased

against the backdrop of slower economic growth, aggressive interest rate hikes and elevated inflation. Moody's Investors Service forecast the rate to trend higher over the remainder of 2023, reaching 4.6% in December. In 2024, the credit agency expects the default rate to peak at 4.7% in the first quarter before easing to 4.2% by the end of September. Moody's Investors Service's latest baseline default rate forecasts incorporate the assumptions that the U.S. high-yield spread will widen to 503 bps over the next four quarters from about 394 bps at the end of September and that the U.S. unemployment rate will rise to 4.3% from 3.8% in the comparable period.

The above default rate forecasts assume slow economic growth this year and in 2024, higher-for-longer interest rates and risks around inflation, which continue to pressure corporate earnings, debt service costs and profits. Geopolitics adds a level of uncertainty to the global macroeconomic outlook.

CORPORATE BOND ISSUANCE

In the first quarter of 2022, worldwide offerings of investment-grade corporate bonds totaled $901 billion, up 12% on a year-ago basis.

Corporate bond issuance proceeded to weaken in the second quarter of 2022. Worldwide offerings of investment-grade corporate bonds totaled $548 billion, down 21% on a year-ago basis. U.S. dollar-denominated high-yield corporate bond issuance was $38 billion in the second quarter, down from $63 billion in the first three months of the year. High-yield issuance was down 79% on a year-ago basis.

Issuance declined further in the third quarter as higher interest rates weighed on lending activity. Worldwide offerings of investment-grade corporate bonds totaled $505 billion, down 30% year over year. U.S. dollar-denominated high-yield corporate bond issuance clocked in at $21 billion in the third quarter. High-yield issuance has declined approximately 84% on a year-ago basis.

Corporate debt issuance remained suppressed in the fourth quarter of 2022. U.S. dollar-denominated high-yield issuance ended the year at $2.47 billion, reflecting a drastic 77% decline from 2021. Meanwhile, investment-grade bond issuance totaled $1.29 trillion in 2022, corresponding to a 20.8% decline from 2021. Over the past 12 months, total U.S. dollar-denominated issuance has tracked at a near-decade low.

The first quarter of 2023 saw a decline in global offerings of corporate bonds, with investment-grade offerings falling 7.9% and high-yield offerings dropping 10.1% year over year. U.S. dollar-denominated investment-grade issuance, which accounts for half of activity globally, decreased 15% on an annual basis. U.S. high-yield issuance also experienced a slow start at just $31.5 billion, marking its slowest start to the year since 2008, and posting a 15% decline compared to the first quarter of 2022.

Issuance strengthened in the second quarter of 2023 as worldwide offerings of corporate bonds revealed a year-over-year increase of 26.8% for investment grade. High-yield issuance in the period nearly doubled the amount recorded in 2022. Approximately 60% of U.S. dollar-denominated high-yield proceeds in the period were allocated to debt refinancing.

Third-quarter 2023 corporate bond issuance weakened, with worldwide offerings of investment-grade corporate bonds falling 5.6% year over year. U.S. dollar-denominated investment-grade corporate bonds totaled $290.4 billion, down 4.7% on a year-ago basis and 15.4% from the prior quarter. U.S. dollar-denominated high-yield corporate bond issuance was $41.7 billion in the third quarter, down from $65.8 billion in the second. However, high-yield issuance was up 42.6% on a year-ago basis.

U.S. dollar-denominated investment-grade debt issuance totaled $29.6 billion in the most recent week, bringing the year-to-date figure to $1,136.7 billion. This reflects a 5.4% decline compared with the same period in 2022.

There was $3.75 billion in high-yield debt issued in the same period, raising the total to $171.5 billion this year. High-yield issuance has outstripped early-year expectations, increasing 31.1% relative to last year's pace. Total U.S. dollar-denominated corporate debt issuance now tracks 2.2% below where it stood in 2022 and is 36.6% lower compared with 2021.

U.S. ECONOMIC OUTLOOK

The U.S. economy continues to show significant resilience, with unexpectedly robust growth in the third quarter. Consequently, we made modest adjustments to our November iteration of the U.S. baseline forecast to include slightly higher near-term growth and a somewhat slower reduction in interest rates by the Federal Reserve. Nonetheless, the pattern of slowing growth in response to fiscal tightening next year followed by a return to trend growth by 2026 remains intact.

In sum, key assumptions changed little in November. Monetary policy assumptions were tweaked to include a slower loosening of monetary policy, although rate cuts still begin in June of next year. Long-term rates were revised higher in response to recent movements in financial

markets, but this simply helps to secure the slowdown in growth already forecast for next year. We continue to assume a two-week federal government shutdown in November, but the impact on the broader economy is minimal. Our oil price outlook is little changed although we did alter our outlook for U.S. natural gas prices because of a change in our forecasting approach. Recent data modestly strengthened the outlook for business investment. The forecasted recovery in existing home sales was pushed out to late 2024 to reflect the expectation that mortgage interest rates will remain higher for longer, but this does support the outlook for new home sales.

Changes to GDP

U.S. GDP exceeded expectations and rose a strong 4.9% in the third quarter, according to the Bureau of Economic Analysis' advance estimate. This was the fifth consecutive quarter of growth near or above the economy's potential and the strongest growth since the final three months of 2021. Inventories contributed powerfully, though not as much as consumer spending. Trade was a minor drag and fixed investment barely grew, but those were the only weak spots outside a drop in real disposable income.

Consumer spending remained an important source of growth in the third quarter. It added 2.7 percentage points to growth. Inventories added 1.3 percentage points after being neutral for growth the prior quarter. Nonresidential fixed investment was neutral in the quarter, but residential investment made its first contribution to growth since the start of 2021. Government contributed 0.8 percentage point with the contribution about evenly split between federal and state and local spending. Trade was a small drag on growth, with the drag from growing imports not quite offset by growth in exports.

The unexpected surge in inventory accumulation in the third quarter will be reversed in the fourth quarter, but otherwise, third-quarter data showed an economy with even more momentum than previously thought. Hence, while third-quarter growth will not be sustained, the near-term outlook is modestly more optimistic. Real GDP growth will be higher than previously forecast through next year before the slower reduction in interest rates undermines the outlook beginning in 2025. Including the new third-quarter history, real GDP is now projected to grow 2.4% this year and 1.7% next year, above previous forecasts of 2.1% and 1.3%, respectively. Subsequently, annual average growth was revised down by 0.1 percentage point the following two years to 1.7% in 2025 and 2.3% in 2026, when growth returns to trend in 2026.

Monetary policy

Monetary policy assumptions have changed slightly since the last update. We continue to expect that the Fed funds rate has reached its terminal range of 5.25%-5.5% and that the Federal Open Market Committee will start cutting rates by June 2024. However, we now anticipate that the Fed will subsequently relax monetary policy more slowly, cutting rates by 25 basis points per quarter until reaching 3% by late 2026, and 2.5% by 2030. This reflects our view that the neutral rate, that is the policy rate at which monetary policy neither stimulates nor dampens economic activity, has risen to pre-global financial crisis levels. We base this assumption on price shifts in securities markets, and the U.S. economy's stronger-than-expected performance despite the Fed's aggressive tightening.

The Fed continues to balance inflation and labor market tightness against financial conditions. Recent inflation figures point in the right direction, with personal consumption expenditure core inflation falling from 3.8% year-ago in September to 3.7% in October. Core consumer price inflation fell from 4.4% to 4.1% over the same period. While energy prices caused an uptick in headline inflation, falling oil prices through October suggest that these pressures will fade. Meanwhile, U.S. Treasuries continued a sell-off through mid-October, which caused the cost of credit to rise broadly. The 10-year Treasury yield breached 5% and settled around 4.6% in early November, a nearly 50 basis points increase from early September. Finally, labor markets are also coming more into balance. October payrolls came in lower than expected at 150,000, while September payroll hiring was revised down to 297,000. In a similar vein, the employment cost index for wages and salaries grew 4.5% year-over-year in the third quarter, down from 4.6% in the second.

This combination of higher long-term rates, slower hiring and wage growth has inflation return to target by late 2024 in our baseline, without the economy entering recession. The November vintage has year-ago consumer price inflation at 3.3% by the end of 2023, a rounding difference up from the previous outlook. As in the previous outlook we anticipate that inflation will return to the Fed's 2% target by the fourth quarter of next year.

Meanwhile, our baseline for long-term interest rates has changed materially from the previous update, reflecting recent bond market developments, and altered assumptions about the neutral rate. We anticipate that the Treasury 10-year yield will average 4.7% in the fourth quarter, about 40 basis points up from the October baseline. We expect the rate to remain above or at 4% until the end of the decade, which adds 10 to 15 basis points per quarter until 2026 compared to the previous baseline.

Foreign exchange markets, finally, are seeing a resurgence of the U.S. dollar's strength since June. Higher U.S. interest rates and geopolitical uncertainty are driving demand for the reserve currency. On a real broad trade-weighted basis, the U.S. dollar was up 4.5% in October from July. This figure is still below its historic peak in October 2022, but the U.S. Dollar remains about 9% above its pre-pandemic level.

Fiscal policy

As of November, the baseline forecast maintains the assumption of a two-week government shutdown. As of November 7, the House Republicans had passed seven out of the necessary 12 appropriations bills and two more were on the docket for votes this week. We expect the House Republicans to complete all the bills shortly before the November 17 deadline for the expiration of the current continuing resolution. However, this timeline likely does not allow sufficient time to work out the differences between the House and Senate budgets, which are far apart. Compared with the $1.6 trillion of discretionary spending enacted in FY2023, House Republicans are likely asking for cuts of about $130 billion, for a total of $1.47 trillion in FY2024, while Senate Democrats' budget allots $1.59 trillion, a $10 billion cut.

As November 17 nears, House Republicans are likely to offer another continuing resolution that extends the government's funding into early 2024, but consistent with previous practice, the deal is likely to include conditions disfavored by Democrats. For example, the initial supplemental aid package to Israel included a reduction in funding for the IRS that had been part of the Inflation Reduction Act. We expect House Republicans to target another, more cherished element of the IRA, and Democrats will balk, precipitating a brief shutdown.

In the October baseline forecast, Moody's Analytics has calibrated the shutdown shock according to the observed severities from previous shutdowns, adjusted for the assumed 2-week duration. The result is a 0.26-percentage point hit to annualized real GDP growth in the fourth quarter of 2023, much of which is due to productivity losses by furloughed federal workers. However, these losses will be made up in the first quarter of 2024 as work schedules bounce back to normality, causing GDP growth to rebound. Therefore, we boosted our estimate of annualized real GDP growth in the first quarter of 2024 by a similar margin.

If the government continues to be funded under a continuing resolution on January 1, 2024, the Fiscal Responsibility Act, which resolved the recent debt-limit crisis, triggers a temporary, automatic 1% across-the-board cut to discretionary spending. Neither Republicans nor Democrats desire this outcome, since both want to increase funding to the Defense Department, but the top-line cut is in line with the Senate Democrats overall number. If a continuing resolution remains in effect on April 30, the 1% cut becomes permanent. However, it should be noted that the extent to which these budget levels are binding against future legislation is unclear.

Given the automatic 1% cuts are close to the Senate Democrats budget, we assess that they would be more likely to keep supporting clean continuing resolutions instead of a government shutdown. However, the majority of House Republicans have indicated that they will not keep supporting continuing resolutions, which tilts the odds toward a shutdown, if not in November, then at the next deadline.

Ultimately, we expected a compromise to be reached in conference between the two houses of Congress. The final deal is expected to hew closer to the Senate Democrats plan, given the House Republicans' large spending cuts are not broadly supported by the Republican Senate nor White House. The final, top-line number for FY2024 discretionary spending likely comes in around $1.57 trillion.

Looking further ahead, the pending expiration, in 2025, of income tax cuts in the Tax Cut and Jobs Act is likely to become an increasingly hot button issue as the election season of 2024 gets under way. While the result will hinge heavily on the winners of the 2024 federal elections, the current baseline assumption is that the vast majority of the tax cuts are extended beyond 2025.

Energy

Moody's Analytics has not changed its oil price forecast in the near term. The war in the wake of the Hamas attack in Israel has not widened. Major Middle-East oil producers have stayed on the sidelines, not using production cuts as a political cudgel as they did after the Yom Kippur war. There is no evidence of immediate cuts in Iranian production because of more forceful application of U.S. sanctions, but we maintain a risk premium for both factors materializing is making oil prices higher than they otherwise would be.

The one small change is a slight upward revision to the equilibrium cost of extraction. We expect the cost of capital to be higher for oil and gas producers given the transition that many countries are working towards to net zero carbon emissions. As such, fewer projects will be financed, and they will be financed at a higher cost. As a result, we assume that a West Texas Intermediate price of $70 per barrel is the effective price at which new wells will be established by U.S. shale oil drillers, who remain the providers of the marginal barrel of oil to the global oil market. As such, there is a slight

upward revision to our WTI and Brent forecasts during the 2026-2030 period.

Moody's Analytics has adopted a new framework governing its forecast of U.S. natural gas prices. The new framework calls for gas prices to converge to a long-term equilibrium price while allowing for cyclical factors such as weather and arbitrage across global natural gas markets to influence prices in the short to medium term. In the long term, the equilibrium price of natural gas extraction is expected to grow in tandem with the inflation rate, plus a premium that reflects a higher cost of capital as the global economy transitions away from fossil fuels.

Whereas results from the Dallas Fed's energy survey help set a breakeven cost of oil extraction, no such estimate exists for natural gas extraction. To this end, we use a 10-year moving average of natural gas prices to proxy the breakeven cost of extraction. This abstracts from business cycle factors to determine the price at which new sources of production consistently come online. This comes to approximately $3.25 per million btu in 2023, down from a price of $6 per million btu at the advent of the U.S. shale revolution.

However, the equilibrium cost of extraction is expected to increase in the wake of the Russian invasion of Ukraine. That invasion created a paradigm shift in the global energy market, as advanced western economies stopped importing crude oil, petroleum products and natural gas from Russia in response. Prices soared in Europe, eventually reaching $60 per million btu in the fall of 2022. While prices have since retreated to $10.76, that is still over three times the price of gas in the U.S., creating significant arbitrage opportunities for companies with export capacity. The cost of transporting natural gas is approximately $3.50 per million btu plus 15% of the raw cost. Applied to current U.S. gas prices, this comes out to $7.52, well below current U.S. gas prices.

U.S. businesses are responding with alacrity to the arbitrage opportunities created by the Russia-Ukraine war. By 2028, the Energy Information Administration estimates that U.S. liquefied natural gas export capacity will rise from its current 11.4 billion cubic feet per day to nearly 23 bcf/day by 2028, with additional projects in Canada and Mexico.

For context, the U.S. produced 36.47 trillion cubic feet of natural gas in 2022. As such, the expected 12.9 bcf per day-addition in export capacity by 2028 would constitute 13% of total current U.S. gas production, allowing the U.S. to export up to 24% of all the natural gas it produces.

Such a rise in natural gas exports would raise domestic natural gas prices. This is because U.S. producers will be forced to invest in and operate less profitable wells, given the large rise in U.S. export volumes. This will raise the breakeven cost of extraction, resulting in higher domestic gas prices.

We estimate the arbitrage effect's impact on U.S. gas prices to be $1 per million btu beginning in 2024, when post-Russia capacity expansions begin to come online. This premium will take roughly a decade to wind down. We estimate the equilibrium gas price in the post-Russia sanction era to be $5 per million btu by 2034. This assumes that the U.S. will export approximately 25% to 30% of all the natural gas it produces, up from the current 11.4%.

The long-term forecast calls for gas prices to grow from this $5 equilibrium level by the rate of inflation plus a premium. The premium reflects the higher cost of capital that producers will face as the global economy transitions away from fossil fuels. This involves loans at less favorable terms, withdrawn credit altogether, and a decline in the expected returns of investment, which prompts firms to choose to return capital to shareholders instead of establishing new sources of production.

Labor market

After an upside surprise in September, the October labor market data must have been heartening to the Federal Reserve, which has been hoping for a notable slowdown in the pace of job growth and wage growth. The October employment report showed an increase of 150,000 jobs on net over the month, a marked slowdown from the prior month's increase of nearly 300,000 (as revised) and the three-month moving average pace of over 200,000 per month. The downshift in job growth is somewhat overstated given that several labor strikes were ongoing during the survey reference week of the payroll survey, including the now-ended United Auto Workers strike against the Big Three car makers. The strike effect was likely about 50,000 jobs (combined with the just-ended SAG-AFTRA strike and a few ongoing small others), suggesting underlying job growth is likely closer to 200,000—a still very healthy increase.

Both hours worked and earnings throttled back as well according to the payroll survey—average hourly earnings grew 0.2% over the month, bringing year-over-year earnings growth down to 4.1%. On the household survey side, the unemployment rate ticked up a tenth of a percentage point to 3.9% and that survey showed a large decline in employment over the month split amongst the private wage and salary sector, agriculture, and self-employment. The plethora of other labor market data however, suggested neither a sharp slowing nor an acceleration in the labor market and so the Fed will likely be satisfied with keeping interest rates where they are for the foreseeable future.

The forecast for a continued slowing in job and wage growth has not changed with the update to the forecast in November. The last couple months of 2023 should each bring job gains of near 150,000 and the average monthly job gains through 2024 will be around 100,000—an upgrade from last month's forecast of 80,000. The unemployment rate is expected to rise 0.2 percentage point over the course of the next year as job growth slows alongside participation in the labor force, sparing the economy from a surge in unemployment. By the end of 2024, wage growth as measured by the ECI for private wage and salary workers will be 3.3% on a year-to-year basis, about the same as we were forecasting last month. Barring a major upheaval in the global economy that causes consumers to drastically pull back on spending, the outlook for the job market is for a graceful slowdown back to the pace of growth that existed prior to the pandemic.

Business investment and housing

The Bureau of Economic Analysis' advance estimate of third-quarter GDP data shows that real business investment declined modestly overall, by 0.1% on an annualized basis. This was broadly in line with Moody's Analytics October forecast of a decline of 0.6% for the quarter. However, performance varied substantially by category. Equipment spending was the main source of weakness, down about 4% annualized, more than the 2% decline projected in the October forecast. By comparison, structures, which had been forecast to weaken, rose nearly 2%. Additionally, intellectual property, more than half of which is software, rose more than expected, by nearly 3%.

The contraction in equipment spending was widespread, with all four major categories declining. IT fell the most, about 5% annualized, continuing a trend over the past two years that has resulted in a cumulative decline of about 9%. The "other" category, which includes mining equipment, fell by about 4% annualized. Mining equipment has fallen throughout 2023 as exploration activity ebbed owing to the $50 per barrel decline in oil prices between April 2022 and mid-2023. However, although transportation equipment fell, the decline was minimal, as light truck sales held onto most of their big second-quarter gains.

The modest gain in structures spending masked wide disparity in the outcomes for various components. Commercial managed a small gain, but the largest segment, office building, is still down nearly 30% since 2019. Mining structures fell significantly, consistent with the decline in spending on mining equipment. In sharp contrast, new manufacturing facilities jumped again and are up 65% year over year, reflecting the booming growth in the building of semiconductor and EV facilities. Factors supporting these trends include the CHIPS Act and gradually expanding demand for EVs, which now amount to 8% of new unit sales of vehicles.

More recent higher-frequency data are not positive. On a three-month moving-average basis, shipments of nondefense, nonaircraft capital goods adjusted for inflation have fallen continuously since March 2022, with a cumulative decline of 2.5% during that time. Moreover, new orders have fallen even more. Further, surveys of planned capital expenditures by Federal Reserve Banks were a bit more pessimistic in October.

The bottom line is that real fixed business investment will rise by 4.2% in 2024 and 1.9% in 2025, slightly more than 4.1% and 1.5%, respectively, in October. The keys will be slightly stronger growth in structures and intellectual property, though equipment spending will be somewhat weaker than previously forecast.

The forecasted recovery in existing home sales was pushed out to late 2024 to reflect the expectation that mortgage interest rates will remain higher for longer. The incentive for existing homeowners to move will be reduced given the significant increase in monthly mortgage payments they would experience if they were to purchase a similarly priced home with a new mortgage. Potential homebuyers—especially first-time homebuyers—will face affordability constraints that will sideline them from the market, keeping home sales at depressed levels until interest rates normalize.

The short-term outlook for new home sales was increased slightly to account for the expected dearth of existing homes available for sale. Homebuilder concessions, including the temporary buydown of mortgage interest rates, will support demand as will the wealth of higher income households who are able to make all-cash offers to purchase homes.

The outlook for house prices was largely unchanged from October apart from the Moody's Analytics House Price Index, which registered an uptick in growth in September, leading to a stronger near-term forecast. The outlook for CRE prices was largely unchanged from last month.

According to Preliminary Estimates…

By ROSS CIOFFI

Preliminary estimates of the euro zone's GDP and inflation were top among the important economic releases last week. Corresponding data for individual countries as well as various retail sales and unemployment releases, earlier monetary policy decisions, and PMI figures made for two busy weeks.

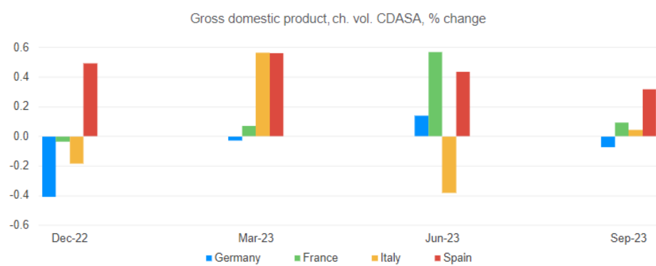
GDP downbeat, as expected

In the preliminary estimate of third-quarter GDP, Eurostat reported that total output in the euro zone contracted 0.1% quarter on quarter, following an upwardly revised 0.2% rise in GDP during the three months through June. In year-ago terms, GDP was just 0.1% higher.

This first estimate of euro zone GDP does not include a detailed breakdown of components, though some individual countries provide flash estimates, which allow for a clue as to what the euro zone aggregate figures will look like.

We expect to see private consumption grow modestly on the back of strong summer demand for services, accompanied by an increase in government consumption. Fixed investments, meanwhile, will likely be marginal, potentially outweighed by a hit to inventory investments. We also expect net trade to detract from GDP growth as exports fall more than imports.

Spain Outperformed in Q3



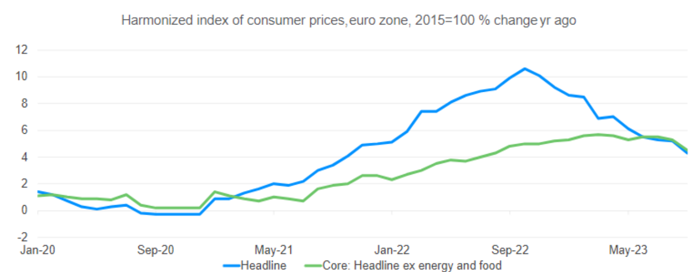
Sources: Destatis, INSEE, ISTAT, INE, Moody's Analytics

Regarding headline GDP, the movements in the major four economies were not significantly different, with marginal growth in Germany and France, and zero growth in Italy. Only Spain stood apart with a relatively solid 0.3% quarter-over-quarter increase in output. But even in Spain it was clear that the same headwinds bearing down across Europe—high prices, elevated interest rates, and uncertainty—left a mark on the Spanish economy, where the only contributor to growth was consumption.

Inflation moves in the right direction

There were also preliminary estimates of the euro zone's harmonised index of consumer prices for October, showing that inflation came in at 2.9% year over year, down from 4.3% in September. The deceleration was stronger than we or the consensus expected, making for better news than hoped for. It is important to keep in mind that the European Central Bank's fight against inflation is still far from over.

Euro Zone Inflation Trends Lower, but Core Takes the Lead



Sources: Eurostat, Moody's Analytics

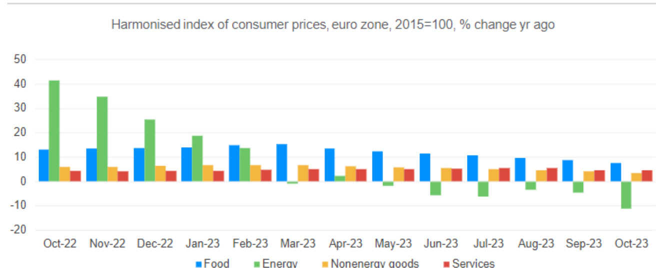
The driver of the October release was a sharp acceleration in the pace of declining energy prices. Energy prices deflated by 11.1% year on year in October, compared with September's 4.6% decline. While we suspect there was an increase in pump prices, utility contracts likely updated, reflecting wholesale natural gas costs that, despite recent gains, are significantly lower than a year earlier. Base effects in the energy segment will continue to play an important role, but base effects are starting to tighten, making for less easily come-by declines in inflation.

This will continue, leading to further declines in the energy segment and keeping downward pressure on the headline inflation rate.

Meanwhile, food inflation decelerated tangibly, though it remained steep. Core inflation was slightly more stubborn, falling just 0.3 percentage point to 4.2% year on year. And this is the crux of why we caution against reading too much into the October headline numbers. Services inflation fell a mere 0.1 percentage point to 4.6% in annual terms, core goods inflation fell more solidly to 3.5% from 4.1%.

We were not expecting a larger decline in services inflation as the strong deceleration posted in the September was a fluke, largely because of base effects out of Germany.

Ultimately, the cost of producing services remains high with wages growing, and input prices such as food, transport and utilities still growing. That said, we do not expect core inflation to begin reaccelerating from here, and the trend in inflation remains negative. There are signs such as deep contractions in monetary aggregates that monetary policy is transmitting to the economy and reducing aggregate demand. Meanwhile, production costs may still be heated, but they are starting to improve with the euro zone's core producer price index, for example, up just 0.6% year over year as of August.



With inflationary pressures persisting and likely to keep core inflation sticky, we do not see the ECB starting to ease policy any time soon.

Major monetary authorities take a breather

The Bank of England convened last week and decided to leave its policy rate untouched at 5.25%. This was in line with our baseline forecast and financial market expectations. Six members of the Monetary Policy Committee voted in favour of keeping rates on hold, and three preferred to raise rates by 25 basis points, which was one fewer member than in the last meeting. For the majority, the restrictive stance of monetary policy was evident in weaker GDP growth and looser labour market conditions. The MPC reiterated that further tightening could be required if inflationary pressures prove persistent. But we think interest rates have peaked.

The MPC's inflation projections imply that interest rates are likely to remain on hold for most of next year, with the pace of decline only shallow thereafter. Our baseline forecast is that the BoE will make its first rate cut in the third quarter of 2024.

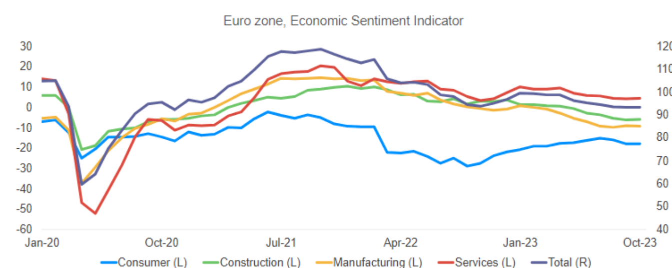
In Norway, the Norges Bank decided to keep the policy rate unchanged at 4.25%. Policymakers observed that current monetary policy is having the desired tightening effect on the economy but were careful to point out that it expects to hike the policy rate at its December meeting. We are forecasting a 25-basis point hike at that time.

By contrast, the Central Bank of Russia raised its benchmark interest rate for the fourth month in a row in October. The CBR increased its one-week repo rate by 200 basis points, to 15%. The bank said inflation pressures have increased significantly above its expectations as rising domestic demand is steadily exceeding the capacity to expand production. Moreover, the ruble has weakened significantly over the past year and remains not far from all-time lows against the dollar. With inflation likely to rise further, we are forecasting one more rate hike out of the CBR. We foresee another 100-basis point increase at the December meeting, after which the CBR will pause and then begin cutting rates in April.

Euro zone doldrums continue

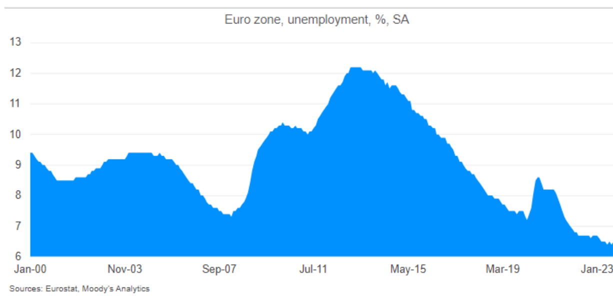
The Economic Sentiment Indicator for the euro zone inched lower to a score of 93.3 in October from 93.4 in September. While confidence among manufacturers, consumers and retailers worsened, there was a marginal improvement among builders and a modest pickup in sentiment among services.

Even with the improvements for builders and service providers, sentiment is grim and not conducive to bustling activity. The increase in the services index, for example, came largely on the back of better expectations for future demand and future hiring, while views on demand and activity over the past three months each worsened. In other words, the view remains that service providers are navigating cooler waters amid weak demand.



The euro zone's unemployment rate ticked back up to 6.5% in September from 6.4% in August. Since May, the rate has oscillated between the two. At either reading, the euro zone's labour market remains tight as firms are eager to hold on to skilled employees. That said, the euro zone economy has stagnated through the year, and GDP will not likely grow with any strength until the latter part of 2024.

PMI surveys from October reported another month of net lay-offs, as hiring stalled in the services sector and manufacturers were pushed to shed more workers. We forecast that the unemployment rate will remain around 6.5% in the fourth quarter, continue rising slowly in the months to follow, and ultimately remain a pillar of support for consumers.



The U.K.'s composite PMI was finalised at 48.7 in October, up from 48.5 in September. There was a minor 0.1-percentage point upward revision from the flash estimate, thanks to the upward revision of the services survey. The services PMI increased to 49.5 in October from 49.3 in September while the manufacturing PMI increased to 44.8 from 44.3. Yet even if the PMI is trudging towards recovery, it is flashing downside risks in the economy. The main problem is weak demand caused by high inflation and interest rates.

The manufacturing PMI ticked higher because firms reported softer contractions in output and new orders compared with the previous month. That remains poor consolation, however, as employment also declined for the 13th month in a row. As industrial activity gels, both input and output prices declined in the sector. Optimism among factories darkened in October, emphasizing the downbeat picture the survey paints for rest of the year.

The services PMI was little changed, but October was the third month in a row that the reading was in the below-50 contractionary territory. Activity declined in the sector, along with new orders. Service providers were also more downbeat about the months ahead. Despite their sour views and a decline in input costs, they hiked output prices at a sharp pace, citing the need to limit the squeeze on their operating margins coming from rising fuel prices and wages.

Euro zone PMI put damper on the outlook for Q4

Flash estimates last week for European PMIs continued to paint a grim picture of the region's economy. Finalised estimates of the manufacturing PMI were published Thursday, and the final composite and services PMI readings will be announced early next week. We are not expecting changes in the final estimates. The data thus far available are that the euro zone's composite PMI slid to 46.5 in October from 47.2 in September. The manufacturing PMI declined to 43.1 from 43.4, and the services PMI dropped to 47.8 from 48.7.

The decline in the manufacturing PMI was caused by renewed losses in new orders and a depleting backlog of orders. Firms cut jobs for a fifth consecutive month and at the sharpest pace since August 2020. Demand conditions worsened, as evidenced by the sharp fall in new factory orders. Factories' own purchases of inputs also fell rapidly along with their inventories of inputs and stocks of finished goods, while cost-cutting management prevailed.

Service-sector activity contracted at an accelerating rate in October, dropping to a rate not seen since early 2021. Recent months have seen service-sector performance alter markedly, as a strong resurgence of activity earlier in the year has moved into reverse, partly reflecting a cooling of a post-pandemic surge in spending on travel and recreation. Measured overall, new business received by service providers fell for a fourth straight month in October, the fastest rate of decline since January 2021.

China's Poor Trade Surplus Has a Good Side

By SARAH TAN

China's foreign trade surplus was the smallest this year and far lower than expected, but there was a bright spot in the data in the form of rising imports.

At $56.5 billion, the surplus was down about $21 billion from October and about $25 billion behind our and market forecasts. Exports fell for a sixth straight month, slipping 6.4% year on year as foreign households trimmed spending to cope with elevated inflation and borrowing costs. But it was the first increase in imports this year that was the more interesting story, with the 3% jump signalling the domestic economy is finding its feet. Volumes of imported commodities such as iron ore, crude oil, coal, natural gas and soybeans rose on a year-earlier basis. It appears that government support measures are gaining traction, lifting business confidence.

Still, the lift in imports doesn't mean the property market's capitulation is over. October imports of steel, a key construction material, were down again from a year earlier in value and volume terms. Property prices are still retreating, and dwelling investment is showing no signs of turning a corner. For many households, wealth is tied to the beleaguered property market, and that is holding back their spending. The real estate sector's freefall is also holding back many businesses. It is worth watching whether the uptick in imports can be sustained through the next few months, especially as we enter the year-end holiday season. For now, we'll take October's improvement as a win.

As for the bad news, the drop in exports gels with a fall in the October manufacturing PMI below the neutral threshold that underscored the shaky demand outlook for Chinese goods. Vehicle shipments jumped 45% in value terms, cushioning the drop in exports. This is fast becoming an important export category thanks to soaring demand for electric vehicles. Still, EVs could not offset the weakness in other export categories. By major trading partners, shipments to the ASEAN bloc, the U.S., the EU, and Japan again fell.

Weakening global demand will only add to business headaches as global interest rates are set to stay high through the rest of the year. That will see global growth slow to around 2.5% in 2023 from an estimated 3% in 2022 and keep export demand soft. We still expect China's trade performance to be weak over the remaining months of 2023. Slowing global demand will put a handbrake on Chinese shipments while the domestic economy takes its time to regain its footing.

THE LONG VIEW: LATIN AMERICA

Tough Decisions Await Argentina's Next President

By JUAN PABLO FUENTES

In two weeks, Argentine voters will choose between the current economic minister, Sergio Massa, and a libertarian outsider, Javier Milei, as the country's next president. The two candidates offer widely differing views on how to fix the crumbling economy. Massa wants to make gradual adjustments to tackle triple-digit inflation and lower the country's structural fiscal deficit. Milei wants to dollarize the economy and eliminate the central bank while deregulating the economy. Voters are divided, with recent polls showing a very close race.

The winner, who takes office on December 10, immediately faces challenging economic and financial conditions. The current administration has met the country's financial obligations with the International Monetary Fund this year despite dwindling hard currency reserves; the government had to borrow money from China to make recent payments. However, upcoming payments late this year and next year will be hard to meet, likely forcing the new administration to renegotiate the existing credit agreement with the IMF.

Moreover, the multilateral arrangement will demand more drastic policy adjustments as Argentina misses the key targets for 2023 stipulated in the agreement. Yet, we see the IMF open to restructuring the credit agreement given the nation's difficult economic situation and the severity of the recent drought that hit the key agricultural industry hard in 2023.

The IMF also wants to avoid a default at all costs, given the reputational implications for the multilateral organization.

The new administration must implement aggressive fiscal consolidation policies to avoid a debt default in the near future. Meanwhile, a large devaluation of the currency seems unavoidable given the current gap between the value of the peso in the official and unregulated markets. Those adjustments will bring more pain in the short term, even if they are needed to tackle recent large macroeconomic imbalances.

Politically, Massa or Milei will face a fragmented congress and a fiery opposition, which will make passing crucial reforms difficult. The honeymoon period will be quite short. The next president should try to form a broad coalition even if that means giving up important concessions to the opposition.

That seems to give the next administration the best chance of handling the current economic crisis without experiencing social and political turmoil. Unfortunately, that scenario seems unlikely given the deep ideological divide between the two candidates. Thus, Argentina not only faces an unsettled economic environment in the short term, but also the increasing risk of undergoing social and political turmoil similar to what other Latin American countries have experienced in the last few years.

Most Rating Changes Are Downgrades

By OLGA BYCHKOVA

U.S.

U.S. credit downgrades again outnumbered upgrades in the latest weekly period. The changes issued by Moody's Investors Service spanned a diverse set of speculative- and investment-grade bonds and industrial and financial companies. Downgrades comprised 11 of the 14 rating changes and 52% of affected debt.

Downgrades were headlined by Western Digital Corp., a developer, manufacturer and provider of data storage devices and solutions, accounting for 31% of debt affected in the period with its senior unsecured ratings lowered to Ba2 from Baa3. Moody's Investors Service also cut the ratings for Western Digital's senior secured notes (previously senior unsecured) to Ba1 from Baa3 and assigned a Ba1 corporate family rating, a Ba1-PD probability of default rating, and an SGL-2 speculative grade liquidity rating. All the ratings were placed under review for further downgrade.

According to the credit agency, the ratings action follows WDC's announcement that it concluded its strategic review and intends to pursue the spinoff of its flash-based product segment as a tax-free distribution to shareholders. WDC expects to operate the hard disk drive and flash-based product segments as separate publicly held companies after the spinoff, which is expected to close in the second half of 2024. The downgrade of the ratings reflects a substantial erosion in WDC's credit metrics resulting from a steep cyclical decline in revenues in its both business segments and a weaker than expected rebound in profitability over the next 12 months, the rating agency added.

Moody's Investors Service placed the ratings under review for downgrade to reflect the potential for a weak financial profile of the combined businesses around the time of the intended spinoff given the agency's expectation for a weak earnings recovery; uncertainty about debt and liquidity profiles after the separation; likelihood for prioritization of shareholder returns, given the background and motivation for the strategic review; and potential for dyssynergies and higher customer and end-market concentration in the two standalone businesses.

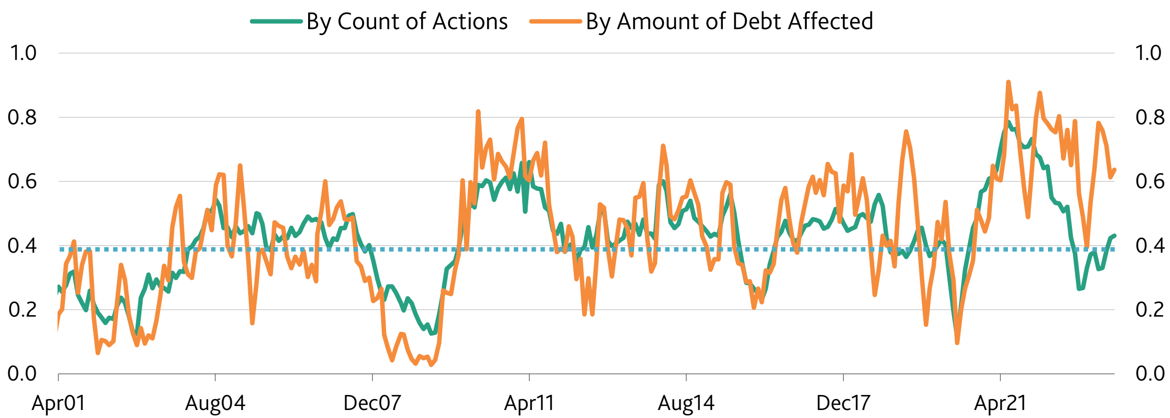
The largest upgrade was made to midstream sector energy company Crestwood Midstream Partners LP, which saw its senior unsecured notes ratings raised to Baa3 from Ba3. The outlook changed to positive. Moody's Investors Service also withdrew all ratings at Crestwood Equity Partners LP, following its acquisition by Energy Transfer LP. The change impacted almost 26% of debt affected in the period. The upgrade of Crestwood Midstream's senior unsecured notes reflects Energy Transfer legally assuming its obligations under these notes. According to the rating agency, the Baa3 ratings for Energy Transfer are supported by very large consolidated and geographically diversified midstream, mostly fee-based operations comprised of crude oil, natural gas and natural gas liquids pipeline services and storage, and natural gas midstream gathering and processing operations. Energy Transfer also holds the general partnership interest and common units in Sunoco LP and USA Compression Partners LP, further adding to overall operational diversity. The change in Crestwood Midstream's outlook to positive reflects the positive outlook of Energy Transfer.

Europe

In Western Europe, downgrades outstripped upgrades 5-to-4, but comprised only 15% of affected debt. The changes by Moody's Investors Service spanned a diverse set of speculative- and investment-grade industrial and financial firms. The largest downgrade, accounting for about 12% of debt affected in the period, was issued to Usina Coruripe Acucar e Alcool, a sugar and ethanol producer and an electricity generatords. Its corporate family rating was lowered to B3 from B2. Moody's Investors Service also cut to B3 from B2 the backed senior secured global notes issued by Coruripe Netherlands B.V., backed by Coruripe and GTW Agronegócios S.A. The outlook for both entities remains negative, reflecting the weak liquidity and high refinancing risk. Unless Coruripe continues to reinforce its liquidity, so that cash at the end of the harvest covers its short-term debt, and continues to successfully refinance its short-term debt, the ratings could be downgraded further.

Upgrades were headlined by International Consolidated Airlines Group, S.A., which manages five airline subsidiaries including British Airways, Plc, Iberia, Vueling, Aer Lingus, and LEVEL. Moody's Investors Service raised the company's corporate family rating to Ba1 from Ba2, its probability of default rating to Ba1-PD from Ba2-PD, the ratings on the company's €500 million senior unsecured notes due 2025, €500 million senior unsecured notes due 2027 and €700 million senior unsecured notes due 2029 to Ba2 from B1, and changed the outlook to stable from positive, impacting 70% of debt affected in the period. According to the credit agency, the rating actions reflect strong recovery in traffic and profitability in 2023, with continued solid demand and pricing; gross debt reduction while maintaining excellent liquidity; the probability of downside risks to performance from macroeconomic pressures being accommodated given current credit metrics; and reduced structural and contractual subordination for the company's senior unsecured notes.

FIGURE 1
Rating Changes - US Corporate & Financial Institutions: Favorable as a % of Total Actions



* Trailing 3-month average

Source: Moody's

FIGURE 2
Rating Key

BCF	Bank Credit Facility Rating	MM	Money-Market
CFR	Corporate Family Rating	MTN	MTN Program Rating
CP	Commercial Paper Rating	Notes	Notes
FSR	Bank Financial Strength Rating	PDR	Probability of Default Rating
IFS	Insurance Financial Strength Rating	PS	Preferred Stock Rating
IR	Issuer Rating	SGLR	Speculative-Grade Liquidity Rating
JrSub	Junior Subordinated Rating	SLTD	Short- and Long-Term Deposit Rating
LGD	Loss Given Default Rating	SrSec	Senior Secured Rating
LTCF	Long-Term Corporate Family Rating	SrUnsec	Senior Unsecured Rating
LTD	Long-Term Deposit Rating	SrSub	Senior Subordinated
LTIR	Long-Term Issuer Rating	STD	Short-Term Deposit Rating

FIGURE 3

Rating Changes: Corporate & Financial Institutions - US

Date	Company	Sector	Rating	Amount ($ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG
11/1/2023	WESTERN DIGITAL CORPORATION	Industrial	SrUnsec	3400	D	Baa3	Ba2	IG
11/1/2023	PERMIAN RESOURCES CORPORATION-PERMIAN RESOURCES OPERATING, LLC	Industrial	SrUnsec/LTCFR/PDR	2400	U	B2	B1	SG
11/1/2023	FRANCHISE GROUP, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG
11/2/2023	LIGHTNING ACQUISITION, LLC-GREENWAY HEALTH, LLC	Industrial	LTCFR/PDR		U	Caa1	B3	SG
11/2/2023	CONNECT HOLDING II LLC-EMBARQ CORPORATION	Industrial	SrUnsec/SrSec/BCF/LTCFR/PDR	1485	D	Caa2	Caa3	SG
11/3/2023	PROASSURANCE CORPORATION	Financial	SrUnsec/IFSR		D	Baa3	Ba1	SG
11/3/2023	TEAM HEALTH HOLDINGS, INC.	Industrial	SrUnsec/SrSec/BCF/LTCFR/PDR	865	D	Ca	C	SG
11/3/2023	MORAN FOODS LLC	Industrial	SrSec/BCF/LTCFR/PDR		D	Caa1	Caa2	SG
11/3/2023	YI GROUP MIDCO, LLC-YI, LLC	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG
11/6/2023	ENERGY TRANSFER LP	Industrial	SrUnsec	2850	U	Ba3	Baa3	SG
11/6/2023	TORTOISEECOFIN BORROWER LLC	Financial			D	Caa2	Ca	SG
11/7/2023	SECURUS HOLDINGS, INC.-AVENTIV TECHNOLOGIES, LLC	Industrial	SrSec/BCF/LTCFR/PDR		D	B1	B2	SG
11/7/2023	ECHO GLOBAL LOGISTICS, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	B1	B2	SG
11/7/2023	ATLAS MIDCO, INC.-ATLAS PURCHASER, INC.	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG

Source: Moody's

FIGURE 4

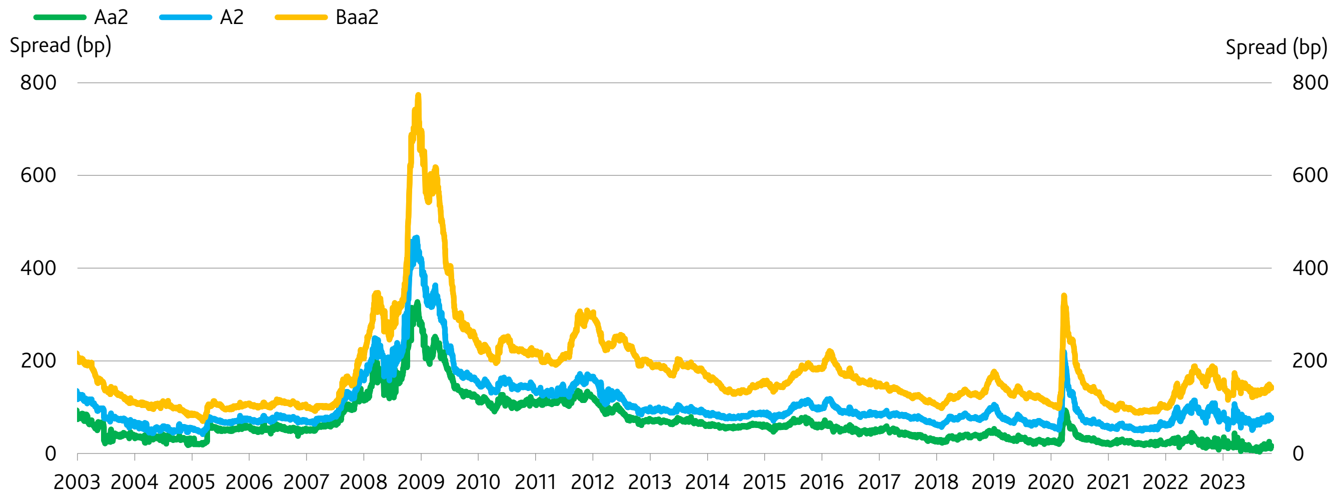
Rating Changes: Corporate & Financial Institutions - Europe

Date	Company	Sector	Rating	Amount ($ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG	Country
11/1/2023	ENTRA ASA	Industrial	LTIR		D	Baa2	Baa3	IG	NORWAY
11/1/2023	USINA CORURIPE ACUCAR E ALCOOL-CORURIPE NETHERLANDS B.V.	Industrial	SrSec/LTCFR	300	D	B2	B3	SG	NETHERLANDS
11/2/2023	BRITISH AIRWAYS, PLC	Industrial	LTCFR		U	Ba2	Ba1	SG	UNITED KINGDOM
11/2/2023	INTERNATIONAL CONSOLIDATED AIRLINES GROUP, S.A.	Industrial	SrUnsec/LTCFR/PDR	1824.7	U	B1	Ba2	SG	SPAIN
11/3/2023	TAP S.G.P.S.-TRANSPORTES AEREOS PORTUGUESES, S.A.	Industrial	SrUnsec/LTCFR/PDR	402.5074	U	B2	B1	SG	PORTUGAL
11/3/2023	SPAREBANK 1 BOLIGKREDITT AS	Financial	LTIR		U	A2	Aa3	IG	NORWAY
11/3/2023	ARAGON HOLDCO GMBH-ARAGON BIDCO GMBH	Industrial	SrSec/BCF/LTCFR/PDR		D	B2	B3	SG	GERMANY
11/6/2023	HOLYROOD STUDENT ACCOMMODATION PLC	Industrial	SrSec	77.96241	D	Baa2	Baa3	IG	UNITED KINGDOM
11/7/2023	SAGA PLC	Financial	SrUnsec/LTCFR/PDR		D	B1	B2	SG	UNITED KINGDOM

Source: Moody's

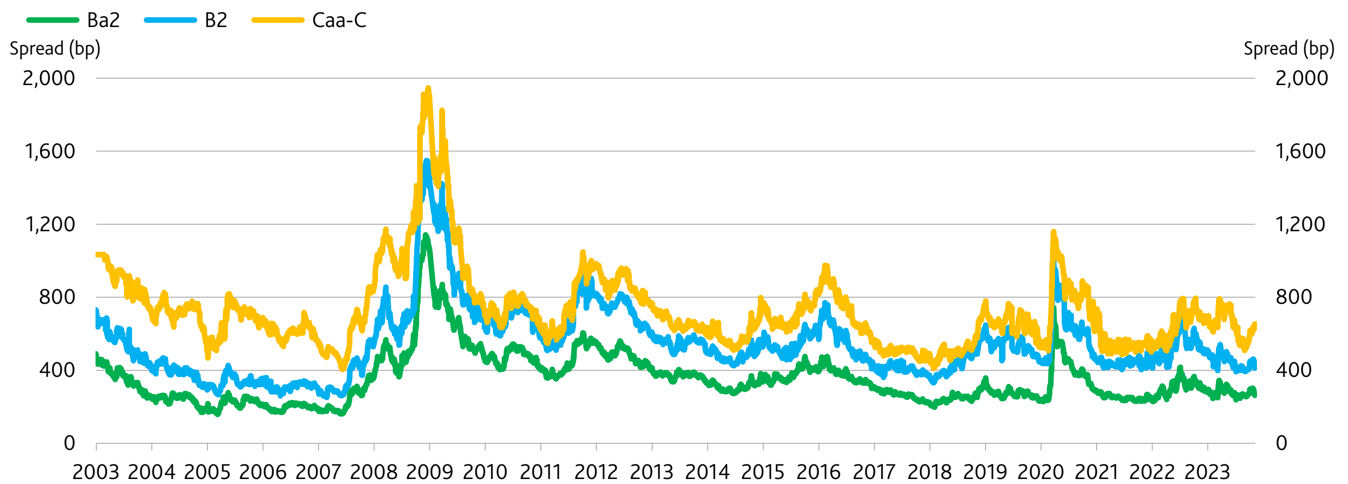
MARKET DATA

Figure 1: 5-Year Median Spreads-Global Data (High Grade)



Source: Moody's

Figure 2: 5-Year Median Spreads-Global Data (High Yield)



Source: Moody's

CDS Movers

Figure 3. CDS Movers - US (November 1, 2023 – November 8, 2023)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	Nov. 8	Nov. 1	Senior Ratings
Bank of New York Mellon Corporation (The)	A2	Baa1	A1
S&P Global Inc.	Aa3	A2	A3
AutoZone, Inc.	Aa2	A1	Baa1
American Electric Power Company, Inc.	Aa2	A1	Baa2
JPMorgan Chase & Co.	A2	A3	A1
JPMorgan Chase Bank, N.A.	A1	A2	Aa2
CVS Health Corporation	A2	A3	Baa2
Amgen Inc.	Aa3	A1	Baa1
International Business Machines Corporation	Aa3	A1	A3
U.S. Bancorp	Baa2	Baa3	A3

CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	Nov. 8	Nov. 1	Senior Ratings
Ford Motor Credit Company LLC	Ba3	Ba2	Ba1
Microsoft Corporation	Aa1	Aaa	Aaa
Merck & Co., Inc.	Aa2	Aa1	A1
Roche Holdings Inc.	Aa3	Aa2	Aa2
Consolidated Edison Company of New York, Inc.	Baa3	Baa2	Baa1
Williams Companies, Inc. (The)	Baa2	Baa1	Baa2
Kinder Morgan, Inc.	Baa2	Baa1	Baa2
Fifth Third Bancorp	Ba2	Ba1	Baa1
Equinix, Inc.	Ba2	Ba1	Baa2
Texas Instruments, Incorporated	A3	A2	Aa3

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Nov. 8	Nov. 1	Spread Diff
Dish DBS Corporation	Caa2	2,731	2,133	598
Dish Network Corporation	Caa2	2,219	1,790	429
Lumen Technologies, Inc.	Caa3	3,829	3,492	337
Embarq Corporation	Caa3	2,718	2,490	227
Qwest Corporation	B3	1,682	1,536	146
United States Cellular Corporation	Ba2	195	169	27
Nabors Industries, Inc.	Caa1	633	614	18
Bristow Group Inc.	B3	392	379	13
Western Union Company (The)	Baa2	152	140	12
Devon Energy Corporation	Baa2	115	104	11

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Nov. 8	Nov. 1	Spread Diff
Liberty Interactive LLC	Caa2	2,876	3,479	-603
CSC Holdings, LLC	B2	1,804	1,975	-171
Staples, Inc.	Caa2	2,901	3,067	-166
Pitney Bowes Inc.	B3	941	1,096	-155
iHeartCommunications, Inc.	Caa1	1,919	2,067	-148
Carnival Corporation	B3	594	697	-103
Domtar Corporation	Ba3	885	973	-88
Anywhere Real Estate Group LLC	B3	1,348	1,434	-86
Freedom Mortgage Corporation	B2	564	648	-84
Service Properties Trust	B2	532	609	-77

Source: Moody's, CMA

CDS Movers

Figure 4. CDS Movers - Europe (November 1, 2023 – November 8, 2023)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	Nov. 8	Nov. 1	Senior Ratings
Rabobank	Aa1	Aa2	Aa2
HSBC Holdings plc	Baa1	Baa2	A3
ING Bank N.V.	Aa2	Aa3	A1
Nordea Bank Abp	Aa3	A1	Aa3
Lloyds Banking Group plc	Baa1	Baa2	A3
NRW.BANK	Aaa	Aa1	Aa1
ENGIE SA	Aa3	A1	Baa1
Mercedes-Benz Group AG	A3	Baa1	A2
Orange	Aa1	Aa2	Baa1
UniCredit Bank Austria AG	A2	A3	A3

CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	Nov. 8	Nov. 1	Senior Ratings
ENEL Finance International N.V.	Baa2	A3	Baa1
DZ BANK AG	A2	A1	Aa2
Dexia Credit Local	Baa2	Baa1	Baa3
Landesbank Hessen-Thueringen Girozentrale	Baa1	A3	Aa3
Bayerische Landesbank AoR	A1	Aa3	Aa3
Nationwide Building Society	Baa2	Baa1	A1
Banco Sabadell, S.A.	Ba1	Baa3	Baa2
Norddeutsche Landesbank Girozentrale	Baa2	Baa1	A3
Bankinter, S.A.	Baa2	Baa1	Baa1
Raiffeisen Bank International AG	Ba2	Ba1	A1

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Nov. 8	Nov. 1	Spread Diff
Vedanta Resources Limited	Caa3	3,248	3,215	32
Wm Morrison Supermarkets Limited	B2	728	703	25
ENEL Finance International N.V.	Baa1	85	64	21
thyssenkrupp AG	Ba3	179	168	11
Credit Mutuel Arkea	Aa3	95	85	10
Nidda Healthcare Holding GMBH	Caa3	142	131	10
Hapag-Lloyd AG	Ba3	282	272	9
Landesbank Hessen-Thueringen Girozentrale	Aa3	74	67	8
NIBC Bank N.V.	A3	130	122	8
3i Group plc	Baa1	109	102	8

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Nov. 8	Nov. 1	Spread Diff
Boparan Finance plc	Caa3	1,276	1,420	-144
Garfunkelux Holdco 3 S.A.	Caa2	1,526	1,638	-112
Carnival plc	B3	563	661	-98
Ardagh Packaging Finance plc	Caa1	1,004	1,078	-73
Jaguar Land Rover Automotive Plc	B1	430	503	-73
Grifols S.A.	Caa1	402	456	-53
Bellis Acquisition Company PLC	Caa2	585	636	-51
United Group B.V.	Caa1	657	695	-38
Valeo S.E.	Baa3	262	298	-36
Schaeffler AG	Baa3	276	306	-31

Source: Moody's, CMA

CDS Movers

Figure 5. CDS Movers - APAC (November 1, 2023 – November 8, 2023)

CDS Implied Rating Rises	CDS Implied Ratings		
Issuer	Nov. 8	Nov. 1	Senior Ratings
Thailand, Government of	A1	A3	Baa1
China, Government of	A3	Baa1	A1
Korea, Government of	Aa1	Aa2	Aa2
Indonesia, Government of	Baa1	Baa2	Baa2
China Development Bank	Baa1	Baa2	A1
National Australia Bank Limited	Aa3	A1	Aa3
Korea Development Bank	Aa2	Aa3	Aa2
Sumitomo Mitsui Trust Bank, Limited	A1	A2	A1
Mitsubishi Corporation	Aaa	Aa1	A2
NBN Co Limited	A2	A3	Aa3

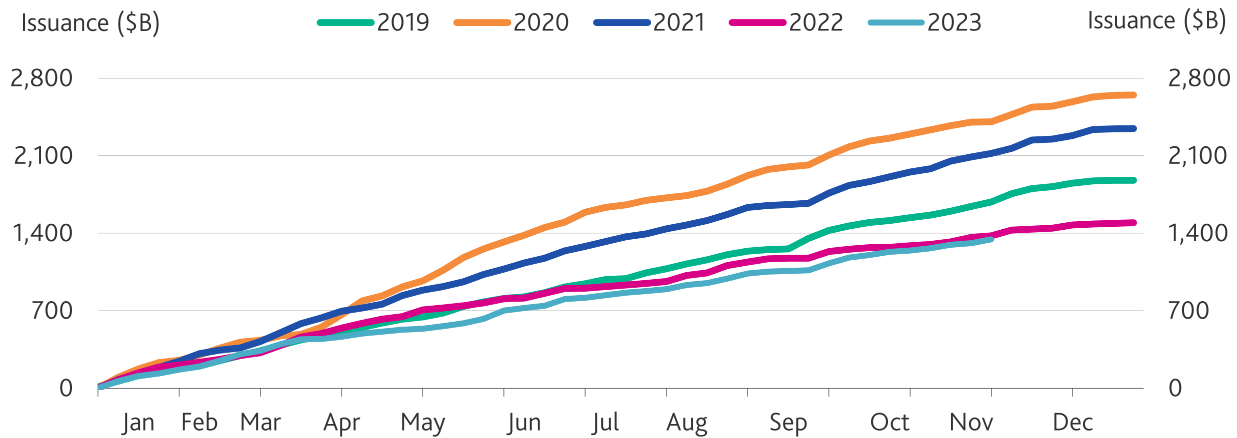
CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	Nov. 8	Nov. 1	Senior Ratings
Kazakhstan, Government of	Ba1	Baa3	Baa2
Woolworths Group Limited	A3	A2	Baa2
CNAC (HK) Finbridge Company Limited	Ba2	Ba1	Baa2
Development Bank of Kazakhstan	Ba2	Ba1	Baa2
Stockland Trust Management Limited	Baa1	A3	A3
Lenovo Group Limited	Ba1	Baa3	Baa2
Amcor Pty Ltd	Baa3	Baa2	Baa2
Adani Green Energy Limited	Caa3	Caa2	B2
Coca-Cola Amatil Limited	A1	Aa3	Baa1
Toyota Industries Corporation	Baa3	Baa2	A2

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Nov. 8	Nov. 1	Spread Diff
Development Bank of Kazakhstan	Baa2	195	169	27
Lenovo Group Limited	Baa2	136	126	10
Pakistan, Government of	Caa3	3,043	3,034	9
Amcor Pty Ltd	Baa2	105	100	5
Coca-Cola Amatil Limited	Baa1	50	45	5
Stockland Trust Management Limited	A3	76	72	4
Toyota Industries Corporation	A2	108	104	4
Transurban Finance Company Pty Ltd	Baa2	100	98	2
Panasonic Holdings Corporation	Baa1	35	33	2
Ampol Limited	Baa1	110	108	2

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Nov. 8	Nov. 1	Spread Diff
Vanke Real Estate (Hong Kong) Company Limited	Baa2	1,873	2,685	-812
Adani Green Energy Limited	B2	729	800	-71
SoftBank Group Corp.	Ba3	265	288	-23
Kia Corporation	Baa1	103	121	-19
RHB Bank Berhad	A3	90	106	-16
LG Electronics Inc.	Baa2	80	96	-16
Vietnam, Government of	Ba2	120	134	-14
Bank of China (Hong Kong) Limited	Aa3	89	102	-13
Korea Water Resources Corporation	Aa2	57	69	-13
Malayan Banking Berhad	A3	60	72	-12

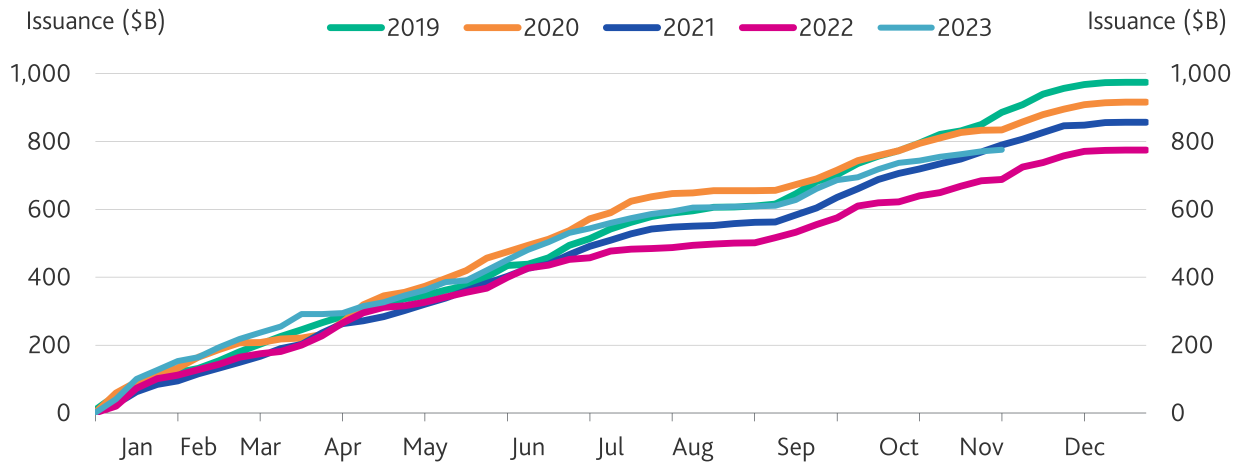
Source: Moody's, CMA

Figure 6. Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated



Source: Moody's / Dealogic

Figure 7. Market Cumulative Issuance - Corporate & Financial Institutions: Euro Denominated



Source: Moody's / Dealogic

Figure 8. Issuance: Corporate & Financial Institutions

	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount $B	Amount $B	Amount $B
Weekly	29.558	3.750	36.765
Year-to-Date	1,136.733	171.486	1,345.251

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount $B	Amount $B	Amount $B
Weekly	3.704	0.528	4.877
Year-to-Date	684.706	59.304	775.735

* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

To order reprints of this report (100 copies minimum), please call 212.553.1658.

Report Number: 1387962

Editor
Reid Kanaley
helpeconomy@moodys.com

Contact Us
Americas
+1.212.553.1658
clientservices@moodys.com

Europe
+44.20.7772.5454
clientservices.emea@moodys.com

Asia (Excluding Japan)
+85 2 2916 1121
clientservices.asia@moodys.com

Japan
+81 3 5408 4100
clientservices.japan@moodys.com

© 2023 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from $1,000 to approximately $5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly owned by Moody's Overseas Holdings Inc., a wholly owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3, respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.